U.S. House of Representatives
Committee on Transportation and Infrastructure
Washington, DC 20515

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## SUMMARY OF SUBJECT MATTER

**TO:** Members of the Subcommittee on Highways and Transit

**FROM:** Subcommittee on Highways and Transit Staff

**SUBJECT:** Hearing on Public-Private Partnerships: Innovative Contracting

### PURPOSE OF HEARING

The Subcommittee on Highways and Transit is scheduled to meet on Tuesday, April 17, 2007, at 10:00 a.m. to receive testimony on innovative contracting and procurement techniques under public-private partnership (PPP) arrangements. The Subcommittee will hear from officials of the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), the Utah Department of Transportation, TriMet (a transit agency in Oregon), as well as representatives of the engineering and construction industries and a transportation employee union.

### BACKGROUND

#### Nature of Public-Private Partnerships

The Government Accountability Office defines a public-private partnership, in part, as "a contractual agreement formed between public and private sector partners, which allows more private sector participation than is traditional. The agreements usually involve a government agency contracting with a private company to design, renovate, construct, operate, maintain, and/or manage a facility or system. While the public sector usually retains ownership in the facility or system, the private party will be given additional decision rights in determining how the project or task will be completed." The U.S. Department of Transportation has adopted this definition for its programs. The goal of PPPs is to allocate responsibilities in the development, construction, and management

of a transportation project to the public and private partners that will produce the best result and to share equitably the risks and rewards among the partners.

## Conventional Contracting Approach

Traditionally, delivery of highway and transit projects follows the design-bid-build sequence. Under conventional contracting practices that began in the mid-20th century, public transportation agencies (state departments of transportation and transit authorities) use in-house engineering staff to design a transportation project until it is 100 percent complete. The project is then let out for construction bids in a competitive process. Generally, the private construction firm that offers the lowest-price bid is awarded the contract to build the project. The project is financed with public (federal, state, or local) funds. Upon completion, the public transportation agency inspects the project to ensure that it is built according to plan and meets various design and construction standards. The agency then operates and maintains the project during the useful life of the project. The advantages of conventional contracting for the public agency are (1) complete control over project design, (2) a competitive bid price for project construction, and (3) a high degree of transparency. The disadvantages are (1) financial exposure to change orders, (2) no guarantee of the lowest final project cost, and (3) a need for complete public funding.

## Innovative Procurement Models of PPPs

For a variety of reasons, in the mid-1980s, both state departments of transportation (state DOTs) and transit agencies began outsourcing to private contractors a number of the activities associated with planning and development of transportation projects. Over time, the list of such outsourced activities lengthened.

As the number of transportation PPPs grew, these arrangements were presented as a win-win proposition for governments and the private sector. For the government, PPPs offered the opportunity to encourage entrepreneurial development and operation of transportation projects, take advantage of private-sector management skills and capital, speed up project delivery and the application of advanced technology, and reduce the size of public payrolls. For the private sector, PPPs offered opportunities to participate in infrastructure investment, to expand a firm's customer base, and to diversify its business model.

A number of innovative contracting models evolved, encompassing varying activities for which the private-sector partner was responsible. They ranged from design-build to design-build-operate, design-build-maintain, and design-build-operate-maintain. As more responsibilities were assumed by the private-sector partner, more of the risks relating to project costs and delays were shifted to the private-sector partner.

## FHWA Special Experimental Project No. 14

To evaluate innovative contracting methods by state DOTs that have the potential of reducing the life-cycle cost of projects while maintaining product quality, FHWA established the Special Experimental Project Number 14—Innovative Contracting (SEP-14) program in 1990. SEP-14's contracting techniques deviate from the competitive bidding requirements of the federal highway programs. Normally, projects carried out using these techniques would not be eligible for federal assistance. Using administrative flexibility under its research, development, and technology

transfer authority, FHWA was able to provide state DOTs federal assistance for projects selected to participate in SEP-14. SEP-14 focused on four innovative contracting methods that could potentially reduce the life-cycle cost of projects, including cost-plus-time bidding, lane rental, warranty clauses, and design-build contracting.

- **Cost-plus-time bidding**, commonly referred to as **A+B bidding**, brings time into bid determinations. For award consideration, the bid is a combination of the price for the contract items and an associated cost of the construction time. The lowest "cost" bid would win the contract, considering all relevant factors. The combined cost of contract items and time is used to determine the lowest bid for awarding the contract; it is not used to determine the contract amount. This is an effective tool to reduce impacts of projects that have the potential to significantly delay users during construction.

- Under a **lane rental** arrangement, a rental fee based on the estimated cost of delay or inconvenience to road users during the rental period is included in the contract. The fee is assessed for the time the contractor occupies or obstructs part of the roadway, and is deducted from the monthly progress payments. The contract is awarded to the low bid for the contract items. This method is particularly useful for major projects in urban areas that could significantly affect the traveling public.

In May 1995, FHWA declared A+B bidding and lane rental arrangements operational, and no longer considered them experimental.

- **Warranties** are used to protect investments from early failure. They have been used successfully by states on non-federal projects. FHWA policy has long restricted the use of warranties on federal projects because such contract requirements may indirectly result in federal assistance being used for routine maintenance. FHWA issued its final rule concerning warranty clause in April 1996. This rule limited warranties to specific features of, and products used for, projects on the National Highway System, and prohibited their use for routine maintenance.

- When a transportation agency uses the **design-build contracting** method for a project, it specifies the end result conditions of, and design criteria for, the project. Contractors bidding for the project then develop design proposals that optimize their individual construction capabilities. By allowing the contractor to optimize its work force, equipment, and scheduling, the design-build approach creates opportunities for innovation. By accepting the greater flexibility under design-build, the contractor also accepts greater responsibility for the performance of the project. Warranties and extended liability insurance are often used to ensure such performance. Since both design and construction are carried out under one procurement contract, project delivery can be expedited because construction can begin before all design details are finalized. Moreover, claims for design errors or construction delays due to design errors are disallowed.

With scores of projects having been carried out under SEP-14, FHWA considered the experiment a success, and cost-plus-time bidding, lane rental agreements, and warranties have been accepted as mainstream practices, and all four non-traditional techniques are used as accepted experimental methods.

In the Transportation Equity Act for the 21st Century (TEA 21), Congress decided to add design-build to the federal-aid highway program as an acceptable contracting method. TEA 21 permitted state DOTs to award a design-build contract for a project approved by the Secretary of Transportation provided that the final design had not begun before the project had met its National Environmental Policy Act (NEPA) requirements. TEA 21 also limited this contracting method to ITS projects over $5 million or any other highway projects over $50 million.

The Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users (SAFETEA-LU) eliminated the $50 million floor for the size of eligible highway projects and required the Secretary to issue revised regulations to allow transportation agencies to proceed with certain actions prior to receipt of final NEPA approval.

FHWA permits federal assistance for projects using design-build contracts when such projects are approved under SEP-14 and the contracts are awarded using competitive bidding procedures.

Controversies surrounding the use of design-build and warranties remain. Smaller construction firms have claimed that they cannot compete successfully against large firms because they do not have the requisite in-house capabilities to offer a design-build package or that they have difficulty acquiring surety bonding for warranties.

**FHWA Special Experimental Project No. 15**

In 2004, FHWA established Special Experimental Project Number 15 (SEP-15) program to explore four major areas where alternative approaches may expedite project delivery. These areas of interest include contracting, right-of-way acquisition, project finance, and compliance with environmental requirements.

SEP-15 is not a replacement program for SEP-14, which continues to be used to evaluate experimental contract administration methods. Instead, it targets a different set of contract oversight issues with the aim of speeding up project delivery. SEP-15 can be used for a specific project or several projects that may or may not be physically adjacent to one another.

As under SEP-14, SEP-15 permits the use on non-traditional project delivery techniques on federal-aid highway projects that are otherwise prohibited by law or FHWA regulation or policy. A primary objective of SEP-15 is to identify current laws, regulations, and practices that inhibit the greater use of PPPs and private investment in transportation improvements, and to develop administrative procedures and recommend statutory changes to overcome such impediments.

In essence, SEP-15 encourages state DOTs, other governmental entities, private entities, and PPPs to identify elements of project development—including requests for proposals, unsolicited proposals, proposal evaluation, project planning and design, finance plans, right-of-way acquisition, environmental review, regulatory compliance, and others—that could be expedited through waivers of existing law, FHWA regulation, or practice (called an experimental feature).

A state DOT wishing to participate in SEP-15 submits an application, which includes a description of the laws, FHWA regulations, policies, and practices from which the state DOT is

seeking waivers, and an explanation of why such waivers would be beneficial to the development of the project. The application is reviewed by FHWA. If the application is approved, FHWA and the state DOT jointly develop an agreement (called an early development agreement) that specifies how the waivers are to be implemented. Other governmental entities, private entities, and PPPs initiating projects may also seek waivers under SEP-15, but the applications must be channeled through state DOTs.

To date, applications for seven projects in Texas, Oregon, and Virginia have been approved. Among these projects, early development agreements have been finalized between FHWA and Texas and Oregon DOTs for four of the projects.

**FTA Design-Build Project Delivery**

Design-Build and Design-Build-Operate-Maintain (DB/DBOM) project delivery methods were first explicitly authorized for Federal transit capital projects by the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). ISTEA established a demonstration program for what were then called "turnkey system projects". The turnkey system authority, originally codified at 49 U.S.C. 5326, allowed a transit agency to contract with a private company or consortium to construct and operate a public transit system under specific performance criteria. FTA was directed to select two or more New Starts projects to determine if DB/DBOM could save time, reduce cost, and introduce new technologies. The demonstration projects include the Baltimore Light Rail Transit (LRT) System Extensions, San Juan Tren Urbano, Bay Area Rapid Transit District San Francisco International Airport Extension, and Northern New Jersey Hudson Bergen LRT line. These projects were selected because they represent various technologies, levels of investment, engineering complexity, financial arrangements, and management structures. Results are documented in a report to Congress titled "Turnkey Experience in American Public Transit" dated October 1998.

TEA 21 made minor modifications to FTA's turnkey system authority, clarifying that a turnkey system project could include designing, building, operating, or maintaining a transit system or operable segment of a transit system. Over time, the term "design-build" became more widely used by the transportation industry to describe these contracting practices. This evolution in the terminology is evidenced by the use of the terms "design-build" and "design-build-operate-maintain" in FTA's September 2000 guidance that describes the process a grant recipient may follow when pursuing a full funding grant agreement for a New Starts project using design-build project delivery methods. Since TEA 21, several design-build projects have been completed, including Los Angeles Union Station Intermodal Terminal, Las Vegas Monorail, Portland Airport MAX, Denver Southeast Corridor (T-Rex), Minneapolis-St. Paul Hiawatha LRT, and New Jersey Transit River Line.

In SAFETEA-LU, the term "turnkey system projects" was repealed and the more common term "design-build" was applied, and the statutory language was moved to the Contract Requirements section of the transit law (49 U.S.C. 5325(d)). SAFETEA-LU also codified the eligibility of the use of design-build contracting techniques to any capital project financed through FTA programs, subject to compliance with all applicable federal requirements.

Currently, several DB/DBOM projects are in various phases of the planning process, including but not limited to the following: Portland South LRT (in Final Design), Houston North Corridor BRT (in PE), Houston Southeast Corridor BRT (in PE), St. Paul-Minneapolis Central

Corridor LRT (in PE), Washington, DC Dulles Corridor Metrorail Extension (in PE), San Francisco BART-Oakland connector (in AA), and Honolulu LRT (in AA).

**FTA Public-Private Partnership Pilot Program**

Section 3011(c) of SAFETEA–LU authorizes the Secretary of Transportation to establish and implement a pilot program to demonstrate the advantages and disadvantages of public-private partnerships for certain new "fixed guideway capital projects", as defined by 49 U.S.C. 5302(a)(1) and (4). In the conference report to SAFETEA-LU, the conferees described the intent of the program as "seeking to identify cost drivers for critical, complex, and capital intensive transit New Starts projects." The focus was studying the PPPs where significant savings could be realized through qualification-based selection and performance-based contracting that integrate risk sharing, streamline project development, engineering, and construction, and preserve the integrity of the NEPA process.

Under the terms and conditions of the Pilot Program, the Secretary may select up to three projects to participate in the Pilot Program from fiscal year 2006 through fiscal year 2009. A project is eligible to participate if it has not entered into a full funding grant agreement or project construction grant agreement with FTA; has a set schedule and finance plan for the construction and operation of the project; and has conducted an analysis of the costs, benefits and efficiencies of the proposed public-private partnership agreement.

The Secretary may approve the application of a project to participate in the Pilot Program if the Secretary determines that: (i) applicable State and local laws permit public-private agreements for all phases of development, construction, and operation of the project; (ii) the recipient is unable to advance the Project due to fiscal constraints; and (iii) the plan implementing the public-private partnership is justified.

FTA will designate as Pilot Projects those projects that exhibit high "demonstration value." In determining the extent to which a project exhibits demonstration value, FTA will consider, among other things: (i) the number of project elements for which the private partner is responsible, (ii) the quality of risk allocation with respect to the cost and ridership of the project, as set forth in the public-private agreement, (iii) the extent to which equity capital and development proceeds are contributed to the project and the terms on which such capital is contributed, (iv) whether the project is part of a congestion mitigation plan that incorporates system-wide congestion pricing, and (v) the expected effects of the foregoing arrangements on the speed of delivery of the project, the quality of delivery and performance of the project, and the reliability of the projections of costs and benefits associated with the project.

Pilot Projects that are candidates for funding under FTA's New Starts program will be evaluated and rated in accordance with the rating scheme of the New Starts program, as adjusted to account for their "demonstration value". Accordingly, Pilot Projects that receive an overall rating of medium or higher and a cost-effectiveness rating of medium or higher, as adjusted for their demonstration value, will be included in the President's Budget to Congress for New Starts funding. Pilot Projects that propose to use non-New Starts Federal funds may receive certain benefits, such as regulatory relief, as negotiated with FTA on a case-by-case basis, after taking into account the demonstration value of the project. FTA expects to utilize an opening in the Pilot Program for a project receiving non-New Starts Federal funds only if the project presents exceptionally high

demonstration value. Currently, five project sponsors have expressed an interest in applying for the Pilot Program.

## PREVIOUS SUBCOMMITTEE ACTION

The Subcommittee on Highways and Transit has held two hearings on PPPs, the first one in May 2006 and more recently in February 2007. The focus of the first hearing was on long-term leases of existing highways in the United States and how such concessions are structured. In response to a growing interest in PPPs among the states and a strong push by FHWA for PPP adoption by the states, the hearing held earlier this year explored the public interests at stake and how those public interests could be protected in PPP arrangements.

WITNESSES

PANEL I

**Mr. James Ray**
Acting Deputy Administrator
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**Mr. David B. Horner**
Chief Counsel
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**The Honorable John Njord**
Director
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Salt Lake City, Utah

**Mr. Fred Hansen**
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PANEL II

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